

Notice of Allowability

Application No.

10/810,963

Examiner

Dang T. Nguyen

Applicant(s)

RUECKES ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Applicant's argument filed on 1/30/06.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search history.

Thuan T. Nguyen
Thuan T. Nguyen 3/16/06

Response to Amendment

1. This office action is in response to applicant's arguments received on 1/30/06.

Terminal Disclaimer

2. The terminal disclaimer filed on 1/30/06 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the application 10/810,962 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

3. Claims 1 - 12 are allowed.
4. The following is an examiner's statement of reasons for allowance:

With respect to claim 1, the combination as claimed wherein at least the limitation of "A non-volatile memory array, comprising: each cell further including an electromechanically deflectable switch, having a first, second and third node, the first node being in electrical communication with the release line, and a third node being in electrical communication with the third node of the cell selection transistor, the electromechanically deflectable switch including a nanotube switching element physically positioned between the first and third nodes of the switch and in electrical communication with the second node of the switch and wherein the second node of the switch is in communication with a reference signal; wherein each nanotube switching element is deflectable into contact with the third node of the switch in response to signals at the first and second nodes of the cell selection transistor and is releasable

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from such contact in response to a signal at the release line" is not disclosed, suggested, or rendered obvious by the prior art of record.

With respect to claim 12, the combination as claimed wherein at least the limitation of "A non-volatile memory array, comprising: each cell further including an electromechanical switch, having a nanotube switching element that is electromechanically deflectable into and out of contact with the third node of the cell selection circuit, said nanotube switching element being in electrical communication with a reference signal" is not disclosed, suggested, or rendered obvious by the prior art of record.

Dependent claims 2 – 11 are allowed based on independent claim 1 above.

5. The prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Segal and Lieber et al., taken individually or in combination, do not teach the claimed invention of having a nanotube switching element that is electromechanically deflectable into and out of contact with the third node of the cell selection circuit, said nanotube switching element being in electrical communication with a reference signal, in combination with other limitations.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Prior art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Segal et al. Patent No. US 6,643,165 B2 Date of Patent: Nov. 4, 2003

Lieber et al. Patent No. US 6,781,166 B2 Date of Patent: Aug. 24, 2004

Contact Information

8. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.


Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

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Center (EBC) at 866-217-9197 (toll-free) or EBC@uspto.gov.


Tuan T. Nguyen

Dang Nguyen 3/15/2006

3/16/06